EXHIBIT
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Smith Economics Group, Ltd.

A Division of Corporate Financial Group

Economics / Finance / Litigation Support

Stan V. Smith, Ph.D.
President

July 29, 2019

Mr. John M. Eubanks
Motley Rice
28 Bridgeside Blvd.
Mt. Pleasant, SC   29464

    Re: Lasden

Dear Mr. Eubanks:

You have asked me to calculate the value of certain losses subsequent to the death of Natalie Lasden. These losses are: (1) the loss of wages and employee benefits; (2) the loss of housekeeping and household management services; and (3) the loss of the value of life ("LVL"), also known as loss of enjoyment of life.

QUALIFICATIONS AND EXPERIENCE

I am President of Smith Economics Group, Ltd., headquartered in Chicago, IL, which provides economic and financial consulting nationwide. I have worked as an economic and financial consultant since 1974, after completing a Research Internship at the Federal Reserve, Board of Governors, in Washington, D.C. My curriculum vitae lists all my publications in the last 10 years and beyond.

I received my Bachelor's Degree from Cornell University. I received a Master's Degree and my Ph.D. in Economics from the University of Chicago; Gary S. Becker, Nobel Laureate 1992, was my Ph.D. thesis advisor. The University of Chicago is one of the world's preeminent institutions for the study of economics, and the home of renowned research in the law and economics movement.

As President of Smith Economics, I have performed economic analyses in a great variety of engagements, including damages analysis in personal injury and wrongful death cases, business valuation, financial analysis, antitrust, contract losses, a wide range of class action matters, employment discrimination, defamation, and intellectual property valuations including evaluations of reasonable royalty.

I have more than 40 years of experience in the field of economics. I am a member of various economic associations and served for three years as Vice President of the National Association of Forensic Economics (NAFE) which is the principal

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association in the field. I was also on the Board of Editors of the peer-reviewed journal, the Journal of Forensic Economics, for over a decade; I have also published scholarly articles in this journal. The JFE is the leading academic journal in the field of Forensic Economics.

I am the creator and founder of Ibbotson Associates' Stock, Bonds, Bills, and Inflation (SBBI) Yearbook, Quarterly, Monthly, and SBBI/PC Services. SBBI is currently published by Duff & Phelps and is also available on various Morningstar, Inc. software platforms. SBBI is widely relied upon and regarded as the most accepted and scholarly reference by the academic, actuarial and investment community, and in courts of law. The SBBI series, which acknowledges my "invaluable role" as having "originated the idea" while Managing Director at Ibbotson Associates, is generally regarded by academics in the field of finance as the most widely accepted source of statistics on the rates of return on investment securities.

I wrote the first textbook on Forensic Economic Damages that has been used in university courses in various states; as an adjunct professor, I created and taught the first course in Forensic Economics nationwide, at DePaul University in Chicago. I have performed economic analysis in many thousands of cases in almost every state since the early 1980s.

BACKGROUND

Natalie Lasden was a 46.4-year-old, Caucasian female, who was born on ████████████, and died on September 11, 2001. Ms. Lasden's remaining life expectancy is estimated at 36.6 years. This data is from the National Center for Health Statistics, United States Life Tables, 2015, Vol. 67, No. 7, National Vital Statistics Reports, 2018. I assume an estimated trial or resolution date of January 1, 2020.

In order to perform this evaluation, I have reviewed the following materials: (1) tax records for Natalie Lasden from 1997 through 2001; (2) employment records for Natalie Lasden from General Electric Corporation; and (3) the case information form.

My methodology for estimating the losses, which is explained below, is generally based on past wage growth, interest rates, and consumer prices, as well as studies regarding the value of life. The effective net discount rate using statistically average wage growth rates and statistically average discount rates is 0.25 percent.

My estimate of the real wage growth rate is 1.00 percent per year. This growth rate is based on Business Sector, Hourly Compensation growth data from the Major Sector Productivity and

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Costs Index found at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: PRS84006103, for the real increase in wages primarily for the last 20 years.

My estimate of the real discount rate is 1.25 percent per year. This discount rate is based on primarily the rate of return on short-term U.S. Treasury investment for the last 20 years. The data is from the statistical series H.15 Selected Interest Rates, published by the Board of Governors of the Federal Reserve System found at www.federalreserve.gov. This data is also published in the Economic Report of the President Table for "Bond yields and interest rates" for the real return on U.S. Treasury investments.

Estimates of real growth and discount rates are net of inflation based on the Consumer Price Index (CPI-U), published in monthly issues of the U.S. Bureau of Labor Statistics, CPI Detailed Report (Washington, D.C.: U.S. Government Printing Office) and available at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: CUUR0000SA0. The rate of inflation for the past 20 years has been 2.16 percent.

I. LOSS OF WAGES AND EMPLOYEE BENEFITS - Annual Employment

Tables 1 through 9 show the loss of wages and benefits for Natalie Lasden. Ms. Lasden was an employee of General Electric Corporation (GE). Records from GE indicate that Ms. Lasden worked as a Sr. Property Specialist in the Aircraft Engines division of GE. Payroll records indicate that Ms. Lasden began working for GE in May 1978, and in June 2001 she received an increase in pay for a salary of $85,500 per year.

I illustrate the wage loss for Ms. Lasden at her annual salary of $85,500 per year at the time of her death. The wages are grown at the national average wage growth rate of 2.05 percent in 2002, 5.27 percent in 2003, 4.41 percent in 2004, 3.04 percent in 2005, 3.89 percent in 2006, 4.08 percent in 2007, 2.94 percent in 2008, 1.05 percent in 2009, 1.23 percent in 2010, 0.52 percent in 2011, 5.87 percent in 2012, zero percent in 2013, 2.57 percent in 2014, 2.46 percent in 2015, 2.14 percent in 2016, 3.01 percent in 2017, 2.92 percent in 2018, and an estimated national average wage growth rate of 3.0 percent in 2019 and 2020. Future wages are grown at a 1.0 percent real rate.

The GE employment file indicates that Ms. Lasden participated in the GE Saving and Security Program, as well as the Pension Plan, and had medical care and dental care benefits. Employee benefit estimates are based on data from the U.S. Department of Labor, Bureau of Labor Statistics, Employer Cost of Employee Compensation - December 2018, 2019, found at www.bls.gov/ect. I have assumed that employee benefits grow at the same rate as wages and are discounted to present value at the same discount

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rate.   Since these tables assume annual work, I do not include employee benefits relating to unemployment, injury, illness or disability.   Insurance benefits are illustrated at $9,443 in year 2018 dollars based on the average annual employer insurance contribution for employees in the Management, Professional, and related fields.   This is equal to 6.93 percent of Ms. Lasden's wages which are estimated to be $136,260 in 2018.   Retirement benefits are illustrated at 8.9 percent of wages based on the average for employees in the Management, Professional, and related fields.   Legally-required employer Social Security contributions are illustrated at 6.2 percent of wages up to the annual maximum which was $80,400 in 2001, which is equal to 5.83 percent of Ms. Lasden's 2001 wages of $85,500.   Total benefits are estimated at 21.66 percent of wages.

Personal consumption is an offset of the income.   I use a personal consumption offset based on a study by Ruble, Patton, and Nelson, "Patton-Nelson Personal Consumption Tables 2011-12," Journal of Legal Economics, Vol. 21, No. 1, 2014, pp. 41-55, based on data from the U.S. Department of Labor, Bureau of Labor Statistics, "Consumer Expenditure Survey, 2011-12," Washington DC, 2012, which shows personal consumption in this case for a two-person household in this case to be 17.00 percent of wages.

I assume annual employment each year and show the accumulation through life expectancy.   While these tables are calculated through the end of life expectancy, the losses from working through any age can be read off the table.

Based on the above assumptions, my opinion of the wage loss is $4,634,463 ▶ Table 9; this figure assumes work to age 83.0, but the ability to work through any assumed age may be read from Table 9; for example, the loss to age 67 is $2,525,164.

II. LOSS OF HOUSEHOLD/FAMILY HOUSEKEEPING AND HOUSEHOLD MANAGEMENT SERVICES

Tables 10 through 12 show the pecuniary loss of tangible housekeeping chores and household management services.   The number of hours of housekeeping and household management services is 19.26 hours per week from 2001 through 2022 for females with partners in the household who work full-time, and 29.49 hours per week in 2023 and thereafter for retired females with partners in the household.   This data is based on the American Time Use Survey published by the Bureau of Labor Statistics, www.bls.gov/tus, usefully summarized in a publication by Expectancy Data, The Dollar Value of A Day: 2017 Dollar Valuation, Shawnee Mission, KS, 2018.

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The hourly value of the housekeeping and household management services is based on the mean hourly earnings of painters, construction and maintenance; childcare workers; waiters and waitresses; cooks, private household; laundry and dry-cleaning workers; maids and housekeeping cleaners; landscaping and groundskeeping workers; bookkeeping, accounting and auditing clerks; and taxi drivers and chauffeurs, which is $15.30 per hour in year 2018 dollars. This wage data is based on information from the U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2018 National Occupational Employment and Wage Statistics found at www.bls.gov/oes. This figure is corroborated by the average hourly values published by Expectancy Data, The Dollar Value of A Day: 2017 Dollar Valuation, Shawnee Mission, KS, 2018, which is also based on the BLS Occupational Employment Statistics.

I assess such services at their estimated market value which includes a conservative estimate of 50 percent hourly non-wage component reasonably charged by agencies or free-lance individuals who supply such services on a part-time basis, and who are responsible for advertising, hiring and vetting, training, insuring and bonding the part-time service provider, and who are also responsible for pay-related costs such as social security contributions, etc. If a person were to hire a free-lance employee directly instead of going through an agency, then he or she would have to take on the responsibility for all the non-wage costs that the agency would otherwise incur and then charge for. The money the person would pay directly in wages would be only a portion of the total costs. The total costs would include those items discussed above that the agency would otherwise incur.

Adding the non-wage component to the hourly wage is consistent with labor market theory and competitive market behavior. Peer-reviewed economic research supports this theory and shows that the non-wage costs can average up to 300 percent for the wage. See, for example, Cushing, Matthew J. and David I. Rosenbaum, "Valuing Household Services: A New Look at the Replacement Cost Approach," Journal of Legal Economics, Vol 19, No. 1, 2012, pp. 37-60, wherein the authors found that non-wage costs exceed wage costs by 167 percent. This is more than triple the 50 percent non-wage costs amount I use, discussed above. Also see Smith, David A., Stan V. Smith, and Stephanie R. Uhl, "Estimating the Value of Family Household Management Services: Approaches and Markups," Forensic Rehabilitation & Economics, Vol 3, No. 2, 2010, pp. 85-94. According to this research, the statistical probability is 99 percent that the non-wage costs exceed 250 percent of the wage cost. The use of only a 50 percent non-wage cost makes my estimate very conservative, and it far more than compensates for two possible variations: variations in the national wage depending on locality, and variations in different types of services actually performed in the household. Thus even

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if one or more of the different types of services are not performed, and even if the services are provided in low wage areas, my use of the low, 50 percent non-wage costs more than compensates for these factors.

According to Merry Maids, a national home cleaning service agency, the charges for their services within the largest 100 Metropolitan Statistical Areas with populations of 500,000 and up range from $40 to $65 per hour, averaging $49 per hour, in 2012. This hourly rate reflects non-wage costs of 250 percent of wages, and after adjusting for market factors, is four times the non-wage costs figure that I use, resulting in an hourly rate of more than double the rate that I use. Thus my use of only a 50 percent addition for non-wage costs is, in fact, very conservative. The hourly value of these services grows at the same rate as the wage growth rate discussed above.

Based on these assumptions, and Natalie Lasden's life expectancy of 83.0 years, my opinion of the loss of the value of housekeeping and household management services is $972,705 ▸ Table 12.

II. LOSS OF VALUE OF LIFE

Tables 13 through 15 show the loss of the value of life. Economists have long agreed that life is valued at more than the lost earnings capacity. My estimate of the value of life is based on many economic studies on what we, as a contemporary society, actually pay to preserve the ability to lead a normal life. The studies examine incremental pay for risky occupations as well as a multitude of data regarding expenditure for life savings by individuals, industry, and state and federal agencies. Based on the average value of a statistical life and life expectancy of 83.0 years, my opinion of the loss of the value of life for Natalie Lasden is $4,607,441 ▸ Table 15.

My estimate of the value of life is consistent with estimates published in other studies that examine and review the broad spectrum of economic literature on the value of life. Among these is "The Plausible Range for the Value of Life," Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 17-39, by T. R. Miller. This study reviews 67 different estimates of the value of life published by economists in peer-reviewed academic journals. The Miller results, in most instances, show the value of life to range from approximately $1.6 million to $2.9 million dollars in year 1988 after-tax dollars, with a mean of approximately $2.2 million dollars. In "The Value of Life: Estimates with Risks by Occupation and Industry," Economic Inquiry, Vol. 42, No. 1, May 2003, pp. 29-48, Professor W. K. Viscusi estimates the value of life to be approximately $4.7 million dollars in year 2000 dollars. An early seminal paper on

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the value of life was written by Richard Thaler and Sherwin Rosen, "The Value of Saving a Life: Evidence from the Labor Market." in N.E. Terlickyj (ed.), Household Production and Consumption. New York: Columbia University Press, 1975, pp. 265-300. The Meta-Analyses Appendix to this report reviews additional literature suggesting a value of life of approximately $5.4 million in year 2008 dollars.

Because it is generally accepted by economists, the economic methodology for the valuation of life has been found to meet the Daubert and Frye standards by many courts, along with the Rules of Evidence in many states nationwide. My testimony on the value of life has been accepted in approximately 225 state and federal cases nationwide in approximately two-thirds of the states and two-thirds of the federal jurisdictions. Testimony has been accepted by U.S. district and appellate courts as well as in state circuit, appellate, and supreme courts. Proof of general acceptance and other standards is found in a discussion of the extensive references to the scientific economic peer-reviewed literature on the value of life listed in the **Value of Life Appendix** to this report.

The underlying, academic, peer-reviewed studies fall into two general groups: (1) consumer behavior and purchases of safety devices; (2) wage risk premiums to workers; in addition, there is a third group of studies consisting of cost-benefit analyses of regulations. For example, one consumer safety study analyzes the costs of smoke detectors and the lifesaving reduction associated with them. One wage premium study examines the differential rates of pay for dangerous occupations with a risk of death on the job. Just as workers receive shift premiums for undesirable work hours, workers also receive a higher rate of pay to accept a increased risk of death on the job. A study of government regulation examines the lifesaving resulting from the installation of smoke stack scrubbers at high-sulphur, coal-burning power plants. As a hypothetical example of the methodology, assume that a safety device such as a carbon monoxide detector costs $46 and results in lowering a person's risk of premature death by one chance in 100,000. The cost per life saved is obtained by dividing $46 by the one in 100,000 probability, yielding $4,600,000. Overall, based on the peer-reviewed economic literature, I estimate the central tendency of the range of the economic studies to be approximately $4.9 million in year 2019 dollars.

Other factors may be weighed to determine if these estimated losses for Natalie Lasden should be adjusted because of special qualities or circumstances that economists do not as yet have a methodology for analysis.

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In each set of tables, the estimated losses are calculated from September 11, 2001 through an assumed trial or resolution date of January 1, 2020, and from that date thereafter. The last table in each set accumulates the past and future estimated losses. These estimates are provided as a tool, an aid, and a guide to assist the evaluation by others.

All opinions expressed in this report are clearly labeled as such. They are rendered in accordance with generally accepted standards within the field of economics and are expressed to a reasonable degree of economic certainty. Estimates, assumptions, illustrations and the use of benchmarks, which are not opinions, but which can be viewed as hypothetical in nature, are also clearly disclosed and identified herein.

In my opinion, it is reasonable for experts in the field of economics and finance to rely on the materials and information I reviewed in this case for the formulation of my substantive opinions herein.

If additional information is provided to me, which could alter my opinions, I may incorporate any such information into an update, revision, addendum, or supplement of the opinions expressed in this report.

If you have any questions, please do not hesitate to call me.

Sincerely,

Stan V. Smith, Ph.D.
President

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APPENDIX: HOUSEHOLD SERVICES VALUATION

Courts have long recognized claims for the value of tangible household family services as an element of damages in personal injury and wrongful death cases, as an aspect of the pecuniary loss in such cases. These services are those that are provided by the injured family member to himself or herself and to other family members, without charge or cost. Other family members who may receive such services can include spouses, children, parents or siblings; such family members do not necessarily have to reside in the same household to receive such services.

Economists and courts have also long recognized that an appropriate method in valuing such tangible services is to value their estimated market-based costs by examining costs paid in labor markets that provide generally comparable services for. Thus, economists can value the service by looking at market equivalents from which a pecuniary standard can be established. This approach is set forth in the 1913 U.S.Supreme Court Decision, Michigan Central Railroad Company v. Vreeland, 227 U.S. 59 (1913). So this method is a century old.

The Supreme Court's suggesting in valuing compensable services in the Vreeland decision is a standard that is not rigid, but actually rather general: "[The] pecuniary loss or damage must be one which can be measured by some standard.... Compensation for such loss manifestly does not include damages by way of recompense for grief or wounded feelings." Michigan Central v. Vreeland.

Examples of lost household services that used to be performed by persons (whether fatally or non-fatally injured) can include physical chores such as mowing the lawn, painting the house, cleaning the windows, doing the laundry, washing and repairing the car, preparing the meals and doing the dishes, among others. For many decades economists have met the Supreme Court's general standard by using labor market equivalents for cooks, laundry workers, gardeners, maids, etc. in valuing the physical chores regarding housekeeping services.

Additionally, economists have recognized that tangible services to family members include services well beyond the physical housekeeping chores. For example, William G. Jungbauer and Mark J. Odegard, in Maximizing Recovery in FELA Wrongful Death Actions, in Assessing Family Loss in Wrongful Death Litigation: The Special Roles of Lost Services and Personal Consumption, Lawyers & Judges Publishing Co., 1999, pp. 284, indicate that a complete analysis of all services performed by family members includes much, much more than the physical housekeeping chores. Frank D. Tinari, in a peer-reviewed, scientific, economic journal article "Household Services: Toward a More Comprehensive Measure," Journal of Forensic Economics, Vol. 11, No. 3, Fall

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1998, pp. 253-265, expresses the same view. Dr. Tinari has been a tenured Professor at Seton Hall University, and is a former president of the National Association of Forensic Economics. There has been no peer-reviewed critique of this article since it appeared.

Jungbauer and Odegard indicate that a person may have provided services of many other professions such as that of a chauffeur, driving other family members to appointments, or that of a security guard, especially regarding the injury to a male spouse, etc. Every family member acts as a companion to other family members. And it is common for family members to act as counselors for one another, typically providing advice and counsel on important personal, family, medical, financial, career or other issues. The marketplace can and does value such items of loss. If the person cannot provide these services, or does so at a reduced capacity or rate, there is a distinct and definite loss to the other family members. These losses have a definite and easily measurable pecuniary value. Vreeland requires only that a "reasonable expectation" of loss of services be proven and that such loss be valued by some standard, presumably a reasonably-based economic standard, to allow recovery.

The economic literature on recovery of loss of services discusses an estimated market-oriented valuation cost method to assess the pecuniary value of the loss of accompaniment services, as well as the value of advice, guidance and counsel services that family members provide to one another, within a broadly defined scope of family services. See, for example, Frank D. Tinari, "Household Services: Toward a More Comprehensive Measure, " Journal of Forensic Economics, Vol. 11, No. 3, Fall 1998, pp. 253-265.

Finally, according to Chief Justice Robert Wilentz of the Supreme Court of New Jersey, in Green v. Bittner, 85 NJ 1, 1980, pp. 12, accompaniment services, to be compensable, must be that which would have provided services substantially equivalent to those provided by the companions often hired today by the aged or infirm, or substantially equivalent to services provided by nurses or practical nurses; and its value must be confined to what the marketplace would pay a stranger with similar qualifications for performing such services.

In valuing the household services that are provided by family members to one another, beyond the physical housekeeping chores, both the U.S Supreme Court and the New Jersey Supreme Court discuss looking at labor markets for the equivalent value of such services. This methodology is identical to the traditional approach that economists have been using for over four decades in valuing the physical chores involved in housekeeping services. 5206

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APPENDIX: VALUE OF LIFE

The economic methodology for the valuation of life has been found
to meet the <u>Daubert</u> and <u>Frye</u> standards by many courts, along with
the Rules of Evidence in many states nationwide. My testimony on
the value of life has been accepted in approximately 225 state
and federal cases nationwide in approximately two-thirds of the
states and two-thirds of the federal jurisdictions. Testimony
has been accepted by U.S. district and appellate courts as well
as in state circuit, appellate, and supreme courts. The <u>Daubert</u>
standard sets forth four criteria:

1.   Testing of the theory and science

2.   Peer Review

3.   Known or potential rate of error

4.   Generally accepted.

Testing of the theory and science has been accomplished over the
past four decades, since the 1960s. Dozens of economists of high
renown have published over a hundred articles in high quality,
peer-reviewed economic journals measuring the value of life. The
value of life theories are perhaps among the most well-tested in
the field of economics, as evidenced by the enormous body of
economic scientific literature that has been published in the
field and is discussed below.

Peer Review of the concepts and methodology have been
extraordinarily extensive. One excellent review of this
extensive, peer-reviewed literature can be found in "The Value of
Risks to Life and Health," W. K. Viscusi, <u>Journal of Economic
Literature</u>, Vol. 31, December 1993, pp. 1912-1946. A second is
"The Value of a Statistical Life: A Critical Review of Market
Estimates throughout the World." W. K. Viscusi and J. E. Aldy,
<u>Journal of Risk and Uncertainty</u>, Vol. 27, No. 1, November 2002,
pp. 5-76. Additional theoretical and empirical work by Viscusi,
a leading researcher in the field, can be found in: "The Value of
Life", W. K. Viscusi, John M. Olin Center for Law, Economics, and
Business, Harvard Law School, Discussion Paper No. 517, June
2005. An additional peer-reviewed article discusses the
application to forensic economics: "The Plausible Range for the
Value of Life," T. R. Miller, <u>Journal of Forensic Economics</u>, Vol.
3, No. 3, Fall 1990, pp. 17-39, which discusses the many dozens
of articles published in other peer-reviewed economic journals on
this topic. This concept is discussed in detail in "Willingness
to Pay Comes of Age: Will the System Survive?" T. R. Miller,
<u>Northwestern University Law Review</u>, Summer 1989, pp. 876-907, and
"Hedonic Damages in Personal Injury and Wrongful Death

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Litigation," by Stan V. Smith in Gaughan and Thornton, eds., Litigation Economics, Contemporary Studies in Economic and Financial Analysis, Vol. 74, pp. 39-59, JAI Press, Greenwich, CT, 1993. Kenneth Arrow, a Nobel Laureate in economics, discusses this method for valuing life in "Invaluable Goods," Journal of Economic Literature, Vol. 35, No. 2, 1997, pp. 759. See the Meta-Analyses Appendix for an additional review of the literature.

The known or potential rate of error is well researched. All of these articles discuss the known or potential rate of error, well within the acceptable standard in the field of economics, generally using a 95% confidence rate for the statistical testing and acceptance of results. There are few areas in the field of economics where the known or potential rate of error has been as well-accepted and subject to more extensive investigation.

General Acceptance of the concepts and methodology on the value of life in the field of economics is extensive. This methodology is and has been generally accepted in the field of economics for many years. Indeed, according to the prestigious and highly-regarded research institute, The Rand Corporation, by 1988, the peer-reviewed scientific methods for estimating the value of life were well-accepted: "Most economists would agree that the willingness-to-pay methodology is the most conceptually appropriate criterion for establishing the value of life," Computing Economic loss in Cases of Wrongful Death, King and Smith, Rand Institute for Civil Justice, R-3549-ICJ, 1988.

While first discussed in cutting edge, peer-reviewed economic journals, additional proof of general acceptance is now indicated by the fact that this methodology is now taught in standard economics courses at the undergraduate and graduate level throughout hundreds of colleges and universities nationwide as well as the fact that it is taught and discussed in widely-accepted textbooks in the field of law and economics: Economics, Sixth Edition, David C. Colander, McGraw-Hill Irwin, Boston, 2006, pp. 463-465; this introductory economics textbook is the third most widely used textbook in college courses nationwide. Hamermesh and Rees's The Economics of Work and Pay, Harper-Collins, 1993, Chapter 13, a standard advanced textbook in labor economics, also discusses the methodology for valuing life. Other textbooks discuss this topic as well. Richard Posner, a Judge and former Chief Judge of the U.S. Court of Appeals for the highly regarded 7th Circuit and Senior Lecturer at the University of Chicago Law School, one of most prolific legal writers in America, details the Value of Life approach in his widely used textbooks: Economic Analysis of Law, 1986, Little Brown & Co., pp. 182-185 and Tort Law, 1982, Little Brown & Co., pp. 120-126.

As further evidence of general acceptance in the field, some surveys (albeit non-scientific) published in the field of

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forensic economics show that hundreds of economists nationwide are now familiar with this methodology and are available to prepare (and critique) forensic economic value of life estimates. Indeed, some economists who indicate they will prepare such analysis for plaintiffs also are willing to critique such analysis for defendants, as I have done. That an economist is willing to critique a report does not indicate that he or she is opposed to the concept or the methodology, but merely available to assure that the plaintiff economist has employed proper techniques. The fact that there are economists who indicate they do not prepare estimates of value of life is again no indication that they oppose the methodology: many claim they are not familiar with the literature and untrained in this area. While some CPAs and others without a degree in economics have opposed these methods, such professionals do not have the requisite academic training and are unqualified to make such judgements. However, as in any field of economics, this area is not without any dissent. General acceptance does not mean universal acceptance.

Additional evidence of general acceptance in the field is found in the teaching of the concepts regarding the value of life. Forensic Economics is now taught as a special field in a number of institutions nationwide. I taught what is believed to be the first course ever presented in the field of Forensic Economics at DePaul University in Spring, 1990. My own book, Economic/Hedonic Damages, Anderson, 1990, and supplemental updates thereto, co-authored with Dr. Michael Brookshire, a Professor of Economics in West Virginia, has been used as a textbook in at least 5 colleges and universities nationwide in such courses in economics, and has a thorough discussion of the methodology. Toppino et. al., in "Forensic Economics in the Classroom," published in The Earnings Analyst, Journal of the American Rehabilitation Economics Association, Vol. 4, 2001, pp. 53-86, indicate that hedonic damages is one of 15 major topic areas taught in such courses.

Lastly, general acceptance is found by examining publications in the primary journal in the field of Forensic Economics, which is the peer-reviewed Journal of Forensic Economics, where there have been published many articles on the value of life. Some are cited above. Others include: "The Econometric Basis for Estimates of the Value of Life," W. K. Viscusi, Vol 3, No. 3, Fall 1990, pp. 61-70; "Hedonic Damages in the Courtroom Setting." Stan V. Smith, Vol. 3, No. 3, Fall 1990, pp. 41-49; "Issues Affecting the Calculated Value of Life," E. P. Berla, M. L. Brookshire and Stan V. Smith, Vol 3, No. 1, 1990, pp. 1-8; "Hedonic Damages and Personal Injury: A Conceptual Approach." G. R. Albrecht, Vol. 5., No. 2, Spring/Summer 1992, pp. 97-104; "The Application of the Hedonic Damages Concept to Wrongful and Personal Injury Litigation." G. R. Albrecht, Vol. 7, No. 2, Spring/Summer 1994, pp. 143-150; and also "A Review of the Monte Carlo Evidence Concerning Hedonic Value of Life Estimates," R. F.

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Gilbert, Vol. 8, No. 2, Spring/Summer 1995, pp. 125-130.
Professor Ike Mathur, while Chairman of the Department of Finance
at Southern Illinois University wrote an article on how the value
of life studies can be used to provide a basis for estimating the
value of life per year in application to litigation. This
article corroborates my approach: "Estimating Value of Life per
Life Year." I. Mathur, Journal of Forensic Economics, Vol. 3,
No. 3, 1990, pp. 95-96. As do many of the authors of
applications of the value of life literature to litigation
economics, Professor Mathur has frequently testified in court,
and courts have admitted his testimony.

It is important to note that this methodology is endorsed and
employed by the U. S. Government as the standard and recommended
approach for use by all U. S. Agencies in valuing life for policy
purposes, as mandated in current and past Presidential Executive
Orders in effect since 1972, and as discussed in "Report to
Congress on the Costs and Benefits of Federal Regulations,"
Office of Management and Budget, 1998, and "Economic Analysis of
Federal Regulations Under Executive Order 12866," Executive
Office of the President, Office of Management and Budget, pp. 1-
37, and "Report to the President on Executive Order No. 12866,"
Regulatory Planning and Review, May 1, 1994, Office of
Information and Regulatory Affairs, Office of Management and
Budget. Prior presidents signed similar orders as discussed in
"Federal Agency Valuations of Human life," Administrative
Conference of the United States, Report for Recommendation 88-7,
December 1988, pp. 368-408. 926

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APPENDIX: META-ANALYSES AND VALUE OF LIFE RESULTS SINCE 2000

Below I list the principal systematic reviews (meta-analyses), since the year 2000, of the value of life literature, and the values of a statistical life that they recommend. In statistics, a meta-analysis combines the results of several studies that address a set of related research hypotheses. Meta-analysis increase the statistical power of studies by analyzing a group of studies and provide a more powerful and accurate data analysis than would result from analyzing each study alone. Based on those reviews, the Summary Table suggests a best estimate. The following table summarizes the studies and their findings.

These statistically based studies place the value between $4.4 and $7.5 million, with $5.9 million in year 2005 dollars representing a conservative yet credible estimate of the average (and range midpoint) of the values of a statistical life published in the studies in year 2005 dollars. Net of human capital, a credible net value of life based on all these literature reviews to be $4.8 million in year 2005 dollars, or $5.4 million in year 2008 dollars.

The actual value that I use, $4.1 million in year 2008 dollars ($4.9 million in year 2019 dollars) is approximately 24 percent lower than a conservative average estimate based on the credible meta-analyses. This value was originally based on a review conducted in the late 1980s, averaging the results published by that time. I have increased that late 1980s value only by inflation over time, despite the fact a review of literature over the years since that time has put obvious upward pressure on the figure that I use.

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VALUE OF STATISTICAL LIFE SUMMARY TABLE

Mean and range of value of statistical life estimates (in 2005 dollars) from the best meta-analyses and systematic reviews since 2000 and characteristics of those reviews.

Study	Formal Meta-Analysis?	Number of Values	Best Estimate (2005 Dollars)	Range	Context
Miller 2000	Yes	68 estimates	$5.1M	$4.5-$6.2M	US estimate from all
Mrozek & Taylor 2002	Yes	203 estimates	$4.4M	+ or - 35%	Labor market
Viscusi & Aldy 2003	Yes	49 estimates	$6.5M	$5.1-$9.6M	Labor market, US estimate from all
Kochi et al. 2006	Yes	234 estimates	$6.0M	+ or - 44%	Labor market survey
Bellavance 2006 (published in 2009)	Yes	37 estimates	$7.5M	+ or - 19%	Labor market

Adapted from Ted R. Miller's paper "Hedonic Damages," Journal of Forensic Economics, Vol. 20, No. 2 (October 2008), pp. 137-153.

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Miller (2000) started from the Miller 1989 JFE estimates and used statistical methods to adjust for differences between studies. It also added newer studies, primarily ones outside the United States. The authors specified the most appropriate study approach a priori, which allowed calculation of a best estimate from the statistical regression. Miller, Ted R, "Variations between Countries in Values of Statistical Life", Journal of Transport Economics and Policy, Vol. 34, No. 2 (May 2000), pp. 169-188.

Mrozek and Taylor (2002) searched intensively for studies of the value of life implied by wages paid for risky jobs. They coded all values from each study rather than a most appropriate estimate. A statistical analysis identified what factors accounted for the differences in values between studies. The authors specified the most appropriate study approach a priori, which allowed calculation of a best estimate from the statistical regression. Mrozek, Janusz R. and Laura O. Taylor, "What Determines the Value of Life? A Meta-Analysis", Journal of Policy Analysis and Management, Vol. 21, No. 2 (2002), pp. 253-270.

Viscusi and Aldy (2003) focused on values from labor market studies that they considered of high quality and that provided data on risk levels and other important explanatory variables. They used statistical methods to account for variations between studies and derive a best estimate. W.K. Viscusi and J.E. Aldy, "The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World", Journal of Risk and Uncertainty, Vol. 27, No. 1 (2003), pp. 5-76.

Kochi et al. (2006) searched intensively for studies of the value of life implied by wages and coded all values from each study rather than a most appropriate estimate. They did not filter study quality carefully. The best estimate was derived by statistical methods based on the distribution of the values within and across studies. Kochi, Ikuho, Bryan Hubbell, and Randall Kramer, "An Empirical Bayes Approach to Combining and Comparing Estimates of the Value of a Statistical Life for Environmental Policy Analysis", Environmental and Resource Economics, Vol. 34 (2006), pp. 385-406.

Bellavance et al. (2009) focused on values from labor market studies that they considered of high quality and that provided data on risk levels and other important explanatory variables. They used statistical methods to account for variations between studies and derive a best estimate. Bellavance, Francois, Georges Dionne, and Martin Lebeau, "The Value of a Statistical Life: A Meta-Analysis with a Mixed Effects Regression Model," Journal of Health Economics, Vol. 28, Issue 2, (2009), pp. 444-464. 3A22

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SUMMARY OF LOSSES FOR NATALIE LASDEN

TABLE	DESCRIPTION	ESTIMATE
*****	******************************	***********
	EARNINGS	
	LOSS OF WAGES & BENEFITS, NET OF PERSONAL CONSUMPTION	
9	Annual Employment to age 67	$2,525,164
	HOUSEHOLD/FAMILY SERVICES	
12	LOSS OF HOUSEHOLD/FAMILY HOUSEKEEPING AND HOME MANAGEMENT SERVICES	$ 972,705
	LOSS OF ENJOYMENT OF LIFE	
15	LOSS OF VALUE OF LIFE	$4,607,441

The information on this Summary of Losses is intended to summarize losses under certain given assumptions. Please refer to the report and the tables for all the opinions.

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Table 1

LOSS OF PAST WAGES
2001 - 2019

YEAR	AGE	WAGES	CUMULATE
2001	46	$26,001	$26,001
2002	47	87,252	113,253
2003	48	91,848	205,101
2004	49	95,900	301,001
2005	50	98,815	399,816
2006	51	102,660	502,476
2007	52	106,851	609,327
2008	53	109,995	719,322
2009	54	111,151	830,473
2010	55	112,514	942,987
2011	56	113,094	1,056,081
2012	57	119,731	1,175,812
2013	58	119,731	1,295,543
2014	59	122,804	1,418,347
2015	60	125,830	1,544,177
2016	61	128,516	1,672,693
2017	62	132,389	1,805,082
2018	63	136,260	1,941,342
2019	64	140,348	$2,081,690

LASDEN $2,081,690

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Table 2

LOSS OF PAST EMPLOYEE BENEFITS
2001 - 2019

YEAR	AGE	EMPLOYEE BENEFITS	CUMULATE
****	***	********	********
2001	46	$5,632	$5,632
2002	47	18,899	24,531
2003	48	19,894	44,425
2004	49	20,772	65,197
2005	50	21,403	86,600
2006	51	22,236	108,836
2007	52	23,144	131,980
2008	53	23,825	155,805
2009	54	24,075	179,880
2010	55	24,371	204,251
2011	56	24,496	228,747
2012	57	25,934	254,681
2013	58	25,934	280,615
2014	59	26,599	307,214
2015	60	27,255	334,469
2016	61	27,837	362,306
2017	62	28,675	390,981
2018	63	29,514	420,495
2019	64	30,399	$450,894

LASDEN $450,894

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Table 3

LOSS OF PAST PERSONAL CONSUMPTION
2001 - 2019

YEAR	AGE	PERSONAL CONSUMPTION	CUMULATE
****	***	***********	*********
2001	46	-$5,377	-$5,377
2002	47	-18,044	-23,421
2003	48	-18,994	-42,415
2004	49	-19,832	-62,247
2005	50	-20,435	-82,682
2006	51	-21,230	-103,912
2007	52	-22,097	-126,009
2008	53	-22,747	-148,756
2009	54	-22,986	-171,742
2010	55	-23,268	-195,010
2011	56	-23,388	-218,398
2012	57	-24,760	-243,158
2013	58	-24,760	-267,918
2014	59	-25,396	-293,314
2015	60	-26,022	-319,336
2016	61	-26,577	-345,913
2017	62	-27,378	-373,291
2018	63	-28,179	-401,470
2019	64	-29,024	-$430,494

| LASDEN | | -$430,494 | |

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Table 4

ECONOMIC LOSS TO DATE
2001 - 2019

YEAR	AGE	WAGES	EMPLOYEE BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
2001	46	$26,001	$5,632	-$5,377	$26,256	$26,256
2002	47	87,252	18,899	-18,044	88,107	114,363
2003	48	91,848	19,894	-18,994	92,748	207,111
2004	49	95,900	20,772	-19,832	96,840	303,951
2005	50	98,815	21,403	-20,435	99,783	403,734
2006	51	102,660	22,236	-21,230	103,666	507,400
2007	52	106,851	23,144	-22,097	107,898	615,298
2008	53	109,995	23,825	-22,747	111,073	726,371
2009	54	111,151	24,075	-22,986	112,240	838,611
2010	55	112,514	24,371	-23,268	113,617	952,228
2011	56	113,094	24,496	-23,388	114,202	1,066,430
2012	57	119,731	25,934	-24,760	120,905	1,187,335
2013	58	119,731	25,934	-24,760	120,905	1,308,240
2014	59	122,804	26,599	-25,396	124,007	1,432,247
2015	60	125,830	27,255	-26,022	127,063	1,559,310
2016	61	128,516	27,837	-26,577	129,776	1,689,086
2017	62	132,389	28,675	-27,378	133,686	1,822,772
2018	63	136,260	29,514	-28,179	137,595	1,960,367
2019	64	140,348	30,399	-29,024	141,723	$2,102,090
LASDEN		$2,081,690	$450,894	-$430,494	$2,102,090	

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Table 5

PRESENT VALUE OF FUTURE WAGES
2020 - 2038

YEAR	AGE	WAGES	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	********	********	**********	**********
2020	65	$141,751	0.98765	$140,000	$140,000
2021	66	143,169	0.97546	139,656	279,656
2022	67	144,601	0.96342	139,311	418,967
2023	68	146,047	0.95152	138,967	557,934
2024	69	147,507	0.93978	138,624	696,558
2025	70	148,982	0.92817	138,281	834,839
2026	71	150,472	0.91672	137,941	972,780
2027	72	151,977	0.90540	137,600	1,110,380
2028	73	153,497	0.89422	137,260	1,247,640
2029	74	155,032	0.88318	136,921	1,384,561
2030	75	156,582	0.87228	136,583	1,521,144
2031	76	158,148	0.86151	136,246	1,657,390
2032	77	159,729	0.85087	135,909	1,793,299
2033	78	161,326	0.84037	135,574	1,928,873
2034	79	162,939	0.82999	135,238	2,064,111
2035	80	164,568	0.81975	134,905	2,199,016
2036	81	166,214	0.80963	134,572	2,333,588
2037	82	167,876	0.79963	134,239	2,467,827
2038	83	50,170	0.79668	39,969	$2,507,796

NATALIE LASDEN $2,507,796

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Table 6

PRESENT VALUE OF FUTURE EMPLOYEE BENEFITS
2020 - 2038

YEAR	AGE	EMPLOYEE BENEFITS	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	********	********	********	********
2020	65	$30,703	0.98765	$30,324	$30,324
2021	66	31,010	0.97546	30,249	60,573
2022	67	31,321	0.96342	30,175	90,748
2023	68	31,634	0.95152	30,100	120,848
2024	69	31,950	0.93978	30,026	150,874
2025	70	32,270	0.92817	29,952	180,826
2026	71	32,592	0.91672	29,878	210,704
2027	72	32,918	0.90540	29,804	240,508
2028	73	33,247	0.89422	29,730	270,238
2029	74	33,580	0.88318	29,657	299,895
2030	75	33,916	0.87228	29,584	329,479
2031	76	34,255	0.86151	29,511	358,990
2032	77	34,597	0.85087	29,438	388,428
2033	78	34,943	0.84037	29,365	417,793
2034	79	35,293	0.82999	29,293	447,086
2035	80	35,645	0.81975	29,220	476,306
2036	81	36,002	0.80963	29,148	505,454
2037	82	36,362	0.79963	29,076	534,530
2038	83	10,867	0.79668	8,658	$543,188

NATALIE LASDEN $543,188

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Table 7

PRESENT VALUE OF FUTURE PERSONAL CONSUMPTION
2020 - 2038

YEAR	AGE	PERSONAL CONSUMPTION	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	***********	********	*********	*********
2020	65	-$29,314	0.98765	-$28,952	-$28,952
2021	66	-29,607	0.97546	-28,880	-57,832
2022	67	-29,903	0.96342	-28,809	-86,641
2023	68	-30,203	0.95152	-28,739	-115,380
2024	69	-30,504	0.93978	-28,667	-144,047
2025	70	-30,809	0.92817	-28,596	-172,643
2026	71	-31,118	0.91672	-28,526	-201,169
2027	72	-31,429	0.90540	-28,456	-229,625
2028	73	-31,743	0.89422	-28,385	-258,010
2029	74	-32,061	0.88318	-28,316	-286,326
2030	75	-32,381	0.87228	-28,245	-314,571
2031	76	-32,705	0.86151	-28,176	-342,747
2032	77	-33,032	0.85087	-28,106	-370,853
2033	78	-33,362	0.84037	-28,036	-398,889
2034	79	-33,696	0.82999	-27,967	-426,856
2035	80	-34,033	0.81975	-27,899	-454,755
2036	81	-34,373	0.80963	-27,829	-482,584
2037	82	-34,717	0.79963	-27,761	-510,345
2038	83	-10,375	0.79668	-8,266	-$518,611

NATALIE LASDEN   -$518,611

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Table 8

PRESENT VALUE OF FUTURE WAGE AND BENEFIT LOSS
2020 - 2038

YEAR	AGE	WAGES	EMPLOYEE BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
2020	65	$140,000	$30,324	-$28,952	$141,372	$141,372
2021	66	139,656	30,249	-28,880	141,025	282,397
2022	67	139,311	30,175	-28,809	140,677	423,074
2023	68	138,967	30,100	-28,739	140,328	563,402
2024	69	138,624	30,026	-28,667	139,983	703,385
2025	70	138,281	29,952	-28,596	139,637	843,022
2026	71	137,941	29,878	-28,526	139,293	982,315
2027	72	137,600	29,804	-28,456	138,948	1,121,263
2028	73	137,260	29,730	-28,385	138,605	1,259,868
2029	74	136,921	29,657	-28,316	138,262	1,398,130
2030	75	136,583	29,584	-28,245	137,922	1,536,052
2031	76	136,246	29,511	-28,176	137,581	1,673,633
2032	77	135,909	29,438	-28,106	137,241	1,810,874
2033	78	135,574	29,365	-28,036	136,903	1,947,777
2034	79	135,238	29,293	-27,967	136,564	2,084,341
2035	80	134,905	29,220	-27,899	136,226	2,220,567
2036	81	134,572	29,148	-27,829	135,891	2,356,458
2037	82	134,239	29,076	-27,761	135,554	2,492,012
2038	83	39,969	8,658	-8,266	40,361	$2,532,373
LASDEN		$2,507,796	$543,188	-$518,611	$2,532,373	

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Table 9

PRESENT VALUE OF NET WAGE AND BENEFIT LOSS
2001 - 2038

YEAR	AGE	WAGES	EMPLOYEE BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
2001	46	$26,001	$5,632	-$5,377	$26,256	$26,256
2002	47	87,252	18,899	-18,044	88,107	114,363
2003	48	91,848	19,894	-18,994	92,748	207,111
2004	49	95,900	20,772	-19,832	96,840	303,951
2005	50	98,815	21,403	-20,435	99,783	403,734
2006	51	102,660	22,236	-21,230	103,666	507,400
2007	52	106,851	23,144	-22,097	107,898	615,298
2008	53	109,995	23,825	-22,747	111,073	726,371
2009	54	111,151	24,075	-22,986	112,240	838,611
2010	55	112,514	24,371	-23,268	113,617	952,228
2011	56	113,094	24,496	-23,388	114,202	1,066,430
2012	57	119,731	25,934	-24,760	120,905	1,187,335
2013	58	119,731	25,934	-24,760	120,905	1,308,240
2014	59	122,804	26,599	-25,396	124,007	1,432,247
2015	60	125,830	27,255	-26,022	127,063	1,559,310
2016	61	128,516	27,837	-26,577	129,776	1,689,086
2017	62	132,389	28,675	-27,378	133,686	1,822,772
2018	63	136,260	29,514	-28,179	137,595	1,960,367
2019	64	140,348	30,399	-29,024	141,723	2,102,090
2020	65	140,000	30,324	-28,952	141,372	2,243,462
2021	66	139,656	30,249	-28,880	141,025	2,384,487
2022	67	139,311	30,175	-28,809	140,677	2,525,164
2023	68	138,967	30,100	-28,739	140,328	2,665,492
2024	69	138,624	30,026	-28,667	139,983	2,805,475
2025	70	138,281	29,952	-28,596	139,637	2,945,112
2026	71	137,941	29,878	-28,526	139,293	3,084,405
2027	72	137,600	29,804	-28,456	138,948	3,223,353
2028	73	137,260	29,730	-28,385	138,605	3,361,958
2029	74	136,921	29,657	-28,316	138,262	3,500,220
2030	75	136,583	29,584	-28,245	137,922	3,638,142
2031	76	136,246	29,511	-28,176	137,581	3,775,723
2032	77	135,909	29,438	-28,106	137,241	3,912,964
2033	78	135,574	29,365	-28,036	136,903	4,049,867
2034	79	135,238	29,293	-27,967	136,564	4,186,431
2035	80	134,905	29,220	-27,899	136,226	4,322,657
2036	81	134,572	29,148	-27,829	135,891	4,458,548
2037	82	134,239	29,076	-27,761	135,554	4,594,102
2038	83	39,969	8,658	-8,266	40,361	$4,634,463
LASDEN		$4,589,486	$994,082	-$949,105	$4,634,463	

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Table 10

LOSS OF PAST HOUSEHOLD SERVICES
2001 - 2019

YEAR	AGE	HOUSEHOLD SERVICES	CUMULATE
****	***	*********	********
2001	46	$4,384	$4,384
2002	47	14,712	19,096
2003	48	15,487	34,583
2004	49	16,170	50,753
2005	50	16,661	67,414
2006	51	17,310	84,724
2007	52	18,016	102,740
2008	53	18,546	121,286
2009	54	18,471	139,757
2010	55	18,971	158,728
2011	56	19,069	177,797
2012	57	20,188	197,985
2013	58	20,188	218,173
2014	59	20,706	238,879
2015	60	21,216	260,095
2016	61	21,669	281,764
2017	62	22,322	304,086
2018	63	22,975	327,061
2019	64	23,664	$350,725

LASDEN $350,725

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Table 11

PRESENT VALUE OF FUTURE HOUSEHOLD SERVICES
2020 - 2038

YEAR	AGE	HOUSEHOLD SERVICES	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	*********	********	********	********
2020	65	$24,374	0.98765	$24,073	$24,073
2021	66	24,618	0.97546	24,014	48,087
2022	67	24,864	0.96342	23,954	72,041
2023	68	38,451	0.95152	36,587	108,628
2024	69	38,836	0.93978	36,497	145,125
2025	70	39,224	0.92817	36,407	181,532
2026	71	39,616	0.91672	36,317	217,849
2027	72	40,012	0.90540	36,227	254,076
2028	73	40,412	0.89422	36,137	290,213
2029	74	40,816	0.88318	36,048	326,261
2030	75	41,224	0.87228	35,959	362,220
2031	76	41,636	0.86151	35,870	398,090
2032	77	42,052	0.85087	35,781	433,871
2033	78	42,473	0.84037	35,693	469,564
2034	79	42,898	0.82999	35,605	505,169
2035	80	43,327	0.81975	35,517	540,686
2036	81	43,760	0.80963	35,429	576,115
2037	82	44,198	0.79963	35,342	611,457
2038	83	13,209	0.79668	10,523	$621,980

NATALIE LASDEN $621,980

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Table 12

PRESENT VALUE OF NET HOUSEHOLD SERVICE LOSS
2001 - 2038

YEAR	AGE	HOUSEHOLD SERVICES	CUMULATE
****	***	********	********
2001	46	$4,384	$4,384
2002	47	14,712	19,096
2003	48	15,487	34,583
2004	49	16,170	50,753
2005	50	16,661	67,414
2006	51	17,310	84,724
2007	52	18,016	102,740
2008	53	18,546	121,286
2009	54	18,471	139,757
2010	55	18,971	158,728
2011	56	19,069	177,797
2012	57	20,188	197,985
2013	58	20,188	218,173
2014	59	20,706	238,879
2015	60	21,216	260,095
2016	61	21,669	281,764
2017	62	22,322	304,086
2018	63	22,975	327,061
2019	64	23,664	350,725
2020	65	24,073	374,798
2021	66	24,014	398,812
2022	67	23,954	422,766
2023	68	36,587	459,353
2024	69	36,497	495,850
2025	70	36,407	532,257
2026	71	36,317	568,574
2027	72	36,227	604,801
2028	73	36,137	640,938
2029	74	36,048	676,986
2030	75	35,959	712,945
2031	76	35,870	748,815
2032	77	35,781	784,596
2033	78	35,693	820,289
2034	79	35,605	855,894
2035	80	35,517	891,411
2036	81	35,429	926,840
2037	82	35,342	962,182
2038	83	10,523	$972,705

LASDEN $972,705

SMITH ECONOMICS GROUP, LTD.   312/943-1551

Table 13

LOSS OF PAST VALUE OF LIFE TO NATALIE
2001 - 2019

YEAR	AGE	LVL	CUMULATE
****	***	**********	**********
2001	46	$29,936	$29,936
2002	47	100,782	130,718
2003	48	102,677	233,395
2004	49	106,024	339,419
2005	50	109,650	449,069
2006	51	112,436	561,505
2007	52	117,023	678,528
2008	53	117,128	795,656
2009	54	120,314	915,970
2010	55	122,119	1,038,089
2011	56	125,734	1,163,823
2012	57	127,921	1,291,744
2013	58	129,840	1,421,584
2014	59	130,827	1,552,411
2015	60	131,782	1,684,193
2016	61	134,510	1,818,703
2017	62	137,348	1,956,051
2018	63	139,971	2,096,022
2019	64	142,771	$2,238,793

LASDEN $2,238,793

SMITH ECONOMICS GROUP, LTD. 312/943-1551

Table 14

PRESENT VALUE OF FUTURE VALUE OF LIFE TO NATALIE
2020 - 2038

YEAR	AGE	LVL	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	********	********	**********	**********
2020	65	$145,626	0.98765	$143,828	$143,828
2021	66	145,626	0.97546	142,052	285,880
2022	67	145,626	0.96342	140,299	426,179
2023	68	145,626	0.95152	138,566	564,745
2024	69	145,626	0.93978	136,856	701,601
2025	70	145,626	0.92817	135,166	836,767
2026	71	145,626	0.91672	133,498	970,265
2027	72	145,626	0.90540	131,850	1,102,115
2028	73	145,626	0.89422	130,222	1,232,337
2029	74	145,626	0.88318	128,614	1,360,951
2030	75	145,626	0.87228	127,027	1,487,978
2031	76	145,626	0.86151	125,458	1,613,436
2032	77	145,626	0.85087	123,909	1,737,345
2033	78	145,626	0.84037	122,380	1,859,725
2034	79	145,626	0.82999	120,868	1,980,593
2035	80	145,626	0.81975	119,377	2,099,970
2036	81	145,626	0.80963	117,903	2,217,873
2037	82	145,626	0.79963	116,447	2,334,320
2038	83	43,089	0.79668	34,328	$2,368,648

NATALIE LASDEN $2,368,648

SMITH ECONOMICS GROUP, LTD.   312/943-1551

Table 15

PRESENT VALUE OF NET LOSS OF VALUE OF LIFE TO NATALIE
2001 - 2038

YEAR	AGE	LVL	CUMULATE
****	***	**********	**********
2001	46	$29,936	$29,936
2002	47	100,782	130,718
2003	48	102,677	233,395
2004	49	106,024	339,419
2005	50	109,650	449,069
2006	51	112,436	561,505
2007	52	117,023	678,528
2008	53	117,128	795,656
2009	54	120,314	915,970
2010	55	122,119	1,038,089
2011	56	125,734	1,163,823
2012	57	127,921	1,291,744
2013	58	129,840	1,421,584
2014	59	130,827	1,552,411
2015	60	131,782	1,684,193
2016	61	134,510	1,818,703
2017	62	137,348	1,956,051
2018	63	139,971	2,096,022
2019	64	142,771	2,238,793
2020	65	143,828	2,382,621
2021	66	142,052	2,524,673
2022	67	140,299	2,664,972
2023	68	138,566	2,803,538
2024	69	136,856	2,940,394
2025	70	135,166	3,075,560
2026	71	133,498	3,209,058
2027	72	131,850	3,340,908
2028	73	130,222	3,471,130
2029	74	128,614	3,599,744
2030	75	127,027	3,726,771
2031	76	125,458	3,852,229
2032	77	123,909	3,976,138
2033	78	122,380	4,098,518
2034	79	120,868	4,219,386
2035	80	119,377	4,338,763
2036	81	117,903	4,456,666
2037	82	116,447	4,573,113
2038	83	34,328	$4,607,441

LASDEN $4,607,441

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